Main Memory

Storing a Bit

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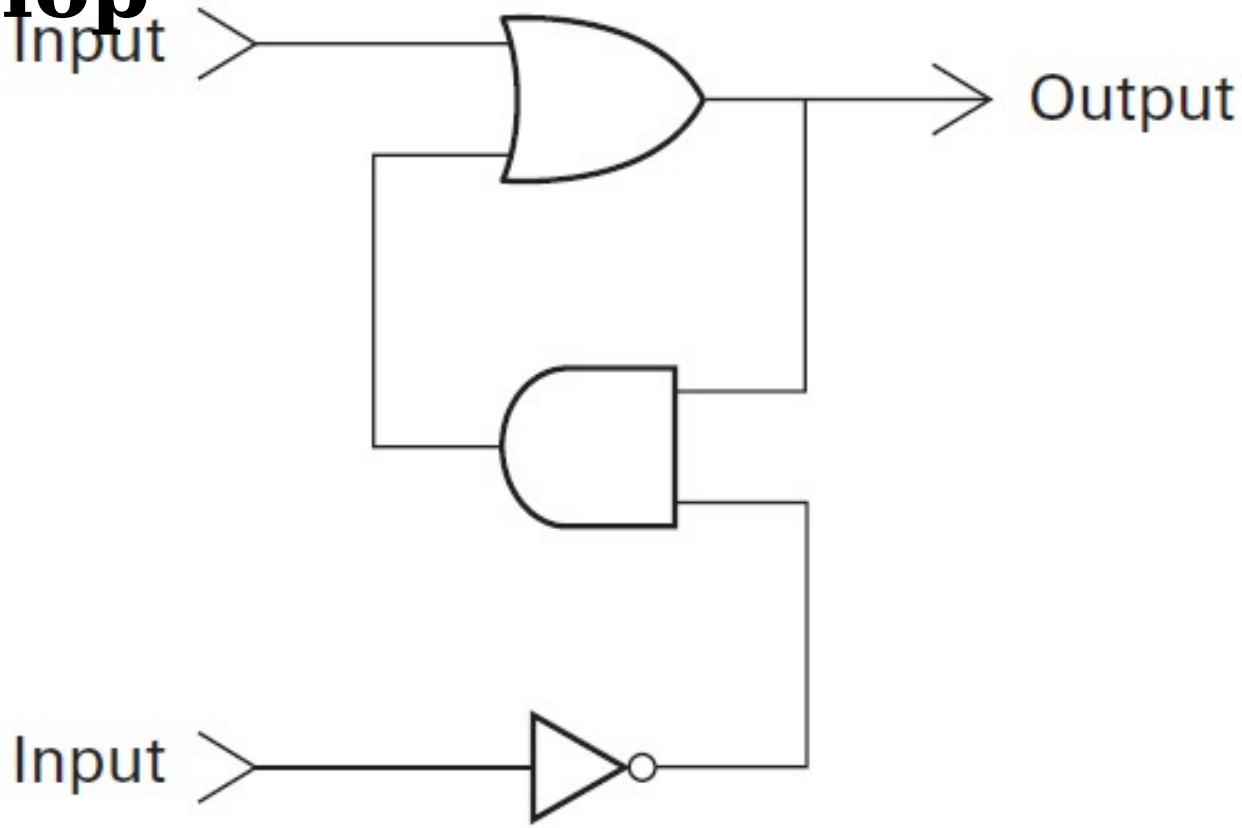
Storing a bit

Flip-Flop



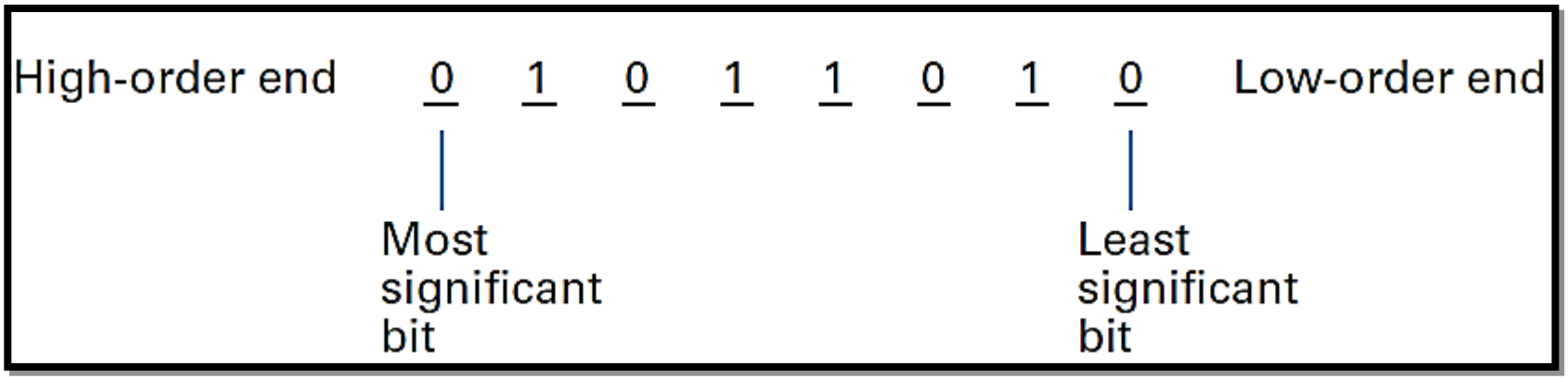
Flip-flop characteristics

- ✓ If both inputs are 0, then it retains its value.
- ✓ If upper bit is changed to 1, stored value changes to 1
- ✓ If lower bit is changed, stored value changes to 0

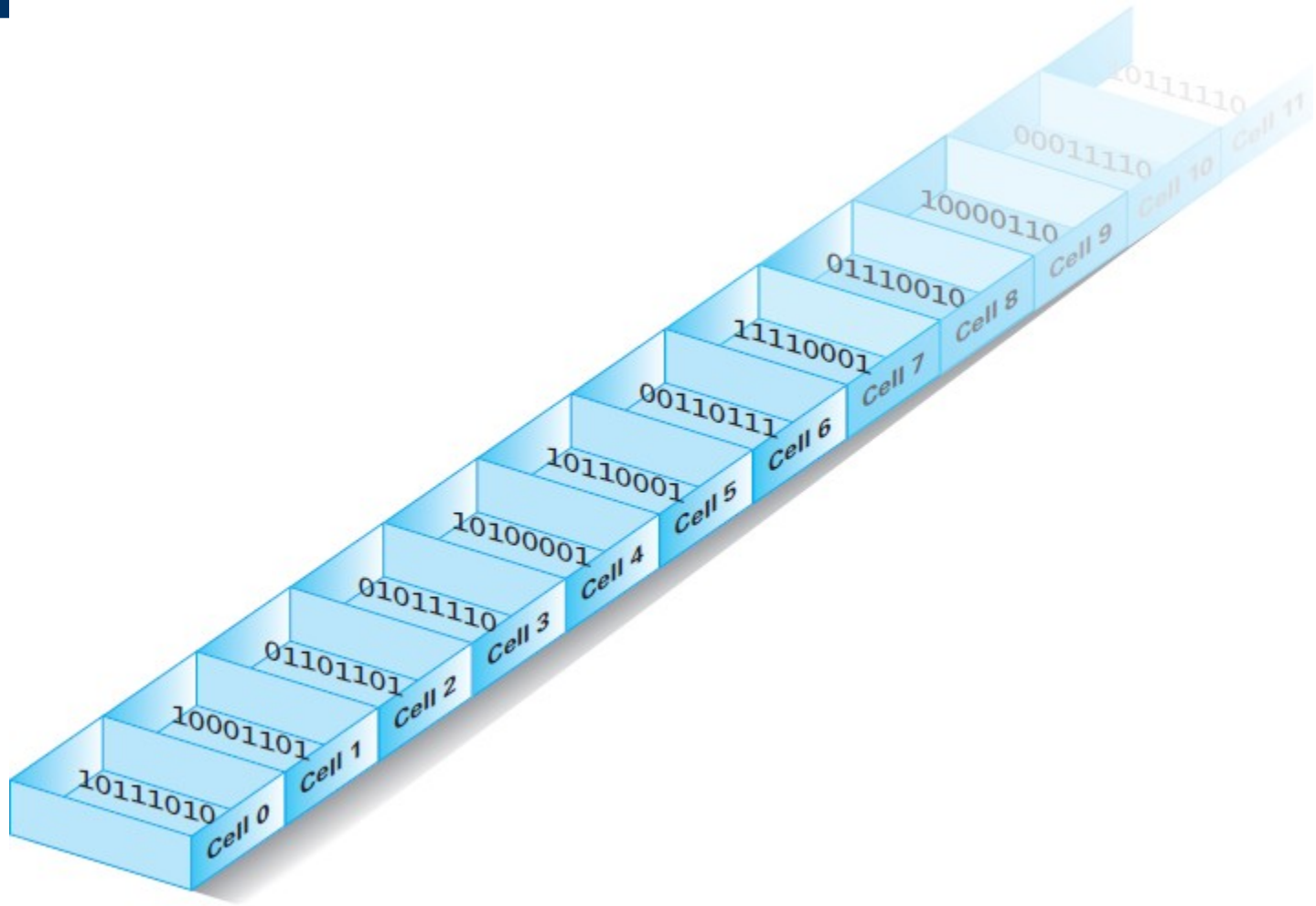
Main memory Organization

- ✓ Manageable units Cells – 8 bits
- ✓ Household devices have few hundred of cells
- ✓ Large computer may have billions of cells

Byte size Organization



Cell Address



Main memory

- ✓ Other circuits can store/retrieve data at any address – RAM
- ✓ Stores bits as tiny electric Charge, refreshes many times a second- DRAM
- ✓ Reduced time to retrieve content from cell – SDRAM

Summary

Main Memory:

- ✓ Flip-flop
- ✓ Memory Organization
- ✓ Cell Address
- ✓ RAM/DRAM/ SDRAM